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(54) Title: MODULATION OF CYTOCHROME P-450 REDUCTASE ACTIVITY IN POPPY PLANTS

(57) Abstract: A gene encoding a cytochrome P-450 reductase enzyme involved in an alkaloid biosynthesis pathway of *Papaver somniferum* is disclosed together with homologues and variants thereof. The enzyme inhibits accumulation of at least one benzylisoquinoline alkaloid above a normal level of the alkaloid in the plant. Transgenic plants and methods of producing same are also disclosed.